

What Is Claimed Is:

1. A boundary line detection apparatus,
comprising:

storage control means for controlling storage of a
plurality of pixels inputted thereto;

calculation means for calculating differences
between pixel values of the pixels whose storage has been
controlled by said storage control means;

detection means for detecting presence or absence
of a boundary from the differences between the pixel
values calculated by said calculation means; and

production means for producing information of a
boundary line based on the differences between the pixel
values calculated by said calculation means and the
information of presence or absence of a boundary detected
by said detection means.

2. A boundary line detection apparatus according
to claim 1, wherein said detection means compares a
threshold value and the differences between the pixel
values calculated by said calculation means with each
other to detect presence or absence of a boundary.

3. A boundary line detection apparatus according
to claim 1, wherein the information of the boundary line
produced by said production means includes a length of

the boundary line, a direction of the boundary line, and a start point and an end point of the boundary line.

4. A boundary line detection method, comprising:

a storage control step of controlling storage of a plurality of pixels inputted;

a calculation step of calculating differences between pixel values of the pixels whose storage has been controlled by the processing of the storage control step;

a detection step of detecting presence or absence of a boundary from the differences between the pixel values calculated by the processing of the calculation step; and

a production step of producing information of a boundary line based on the differences between the pixel values calculated by the processing of the calculation step and the information of presence or absence of a boundary detected by the processing of the detection step.

5. A recording medium on which a computer-readable program is recorded, the computer-readable program comprising:

a storage control step of controlling storage of a plurality of pixels inputted;

a calculation step of calculating differences between pixel values of the pixels whose storage has been

controlled by the processing of the storage control step;

a detection step of detecting presence or absence of a boundary from the differences between the pixel values calculated by the processing of the calculation step; and

a production step of producing information of a boundary line based on the differences between the pixel values calculated by the processing of the calculation step and the information of presence or absence of a boundary detected by the processing of the detection step.

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6. An image processing apparatus, comprising:

storage control means for controlling storage of a plurality of pixels inputted thereto;

detection means for detecting presence or absence of a boundary line in the proximity of the pixels whose storage has been controlled by said storage control means;

position calculation means for calculating positions of the boundary line with respect to the pixels whose storage has been controlled by said storage control means;

weighting means for weighting the pixel values of the pixels in accordance with the positions calculated by said position calculation means; and

outputting means for outputting the pixels weighted by said weighting means.

7. An image processing method, comprising:

a storage control step of controlling storage of a plurality of pixels inputted;

a detection step of detecting presence or absence of a boundary line in the proximity of the pixels whose storage has been controlled by the processing of the storage control step;

a position calculation step of calculating positions of the boundary line with respect to the pixels whose storage has been controlled by the processing of the storage control step;

a weighting step of weighting the pixel values of the pixels in accordance with the positions calculated by the position calculation step; and

an outputting step of outputting the pixels weighted by the processing of the weighting step.

8. A recording medium on which a computer-readable program is recorded, the computer-readable program comprising:

a storage control step of controlling storage of a plurality of pixels inputted;

a detection step of detecting presence or absence

of a boundary line in the proximity of the pixels whose storage has been controlled by the processing of the storage control step;

a position calculation step of calculating positions of the boundary line with respect to the pixels whose storage has been controlled by the processing of the storage control step;

a weighting step of weighting the pixel values of the pixels in accordance with the positions calculated by the position calculation step; and

an outputting step of outputting the pixels weighted by the processing of the weighting step.